

--6. An injection unit for an injection molding machine for processing thermoplastic material, said molding machine having a screw guided in a cylinder, comprising

a first motor coupled to said screw for axially moving said screw in said cylinder for injecting said thermoplastic material, and a second motor coupled to said screw by a gear mechanism for rotating said screw for preparing said thermoplastic material for injection, said gear mechanism reducing the rotational speed of said screw relative to said second motor to a speed appropriate for the preparation of said material for injection.

7. The injection unit according to claim 6, wherein the gear mechanism can be blocked during the operation of injecting the thermoplastic material.

8. The injection unit according to claim 7, wherein a non-return valve is provided as the block.

9. The injection unit according to claim 7, wherein a belt-pulley gear is provided as the gear mechanism.

10. The injection unit according to claim 6, wherein the first motor rotatably moves a spindle which is connected to the screw via a spindle nut secured against axial displacement.—